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Docket No. 2003-052-TAP

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Morgan et al.

Serial No. 10/670,919

Filed: September 25, 2003

For: Tape Cartridge Media Access
Door§
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§
§

Group Art Unit: 3654

Examiner: Haugland, Scott J.

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450Certificate of Transmission Under 37 C.F.R. 51.8(a)I hereby certify this correspondence is being transmitted via
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By:

Cassie Parker
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APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on September 27, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this
brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

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REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: Storage Technology Corporation.

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RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

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STATUS OF CLAIMS**A. TOTAL NUMBER OF CLAIMS IN THE APPLICATION**

The claims in the application are: 1, 2, 4-6, 12, 13, 15-19, 21, and 22.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

Claims canceled: 3, 7-11, 14, and 20

Claims withdrawn from consideration but not canceled: None.

Claims pending: 1, 2, 4-6, 12, 13, 15-19, 21, and 22.

Claims allowed: None.

Claims rejected: 1, 2, 4-6, 12, 13, 15-19, 21, 22.

Claims objected to:

C. CLAIMS ON APPEAL

The claims on appeal are: 1, 2, 4-6, 12, 13, 15-19, 21, and 22.

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STATUS OF AMENDMENTS

No amendments were filed after the final office action of July 27, 2005.

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SUMMARY OF CLAIMED SUBJECT MATTER**A. CLAIM 1 - INDEPENDENT**

The subject matter of claim 1 is directed to a magnetic tape cartridge (specification p. 5, ll. 4-5; figures 1A, 1B, 2A, 2B, reference numeral 100). The magnetic tape cartridge includes a door on the first face of the cartridge (specification p. 5, ll. 10-11, 14-15, 26-27; specification p. 5 l. 30 through p. 6, l. 1; figures 1A, 1B, 2A, 2B, reference numeral 104), a slider on a second face of the cartridge (specification p. 5, ll. 8-9, 13-17; specification p. 6 ll. 6, 14, 16-18, 25-29; figures 1A, 1B, 2A, 2B, reference numeral 102), and a belt within the cartridge that connects the door and the slider (specification p. 6, ll. 13-15, 27-29; specification p. 7, ll. 9-10; figure 3B, reference numeral 314), where when the slider moves, the door opens (specification p. 6, ll. 26-27; specification p. 7, ll. 3-5) by sliding parallel to the first face of the cartridge (specification p. 6, ll. 29-30; specification p. 7, ll. 10-11; figures 3A, 3B, reference numeral 104).

B. CLAIM 12 - INDEPENDENT

The subject matter of claim 12 is directed to a system for accessing data on a magnetic tape cartridge (specification p. 6, ll. 9-11, 20-29; figures 3A, 3B, reference numeral 300). The system for accessing data on the magnetic tape cartridge includes a drive for receiving the magnetic tape cartridge (specification p. 6, ll. 9-11, 20-29; figures 3A, 3B, reference numeral 300), a door on the first face of the cartridge (specification p. 5, ll. 10-11, 14-15, 26-27; specification p. 5 l. 30 through p. 6, l. 1; figures 1A, 1B, 2A, 2B, reference numeral 104), a slider on a second face of the cartridge (specification p. 5, ll. 8-9, 13-17; specification p. 6 ll. 6, 14, 16-18, 25-29; figures 1A, 1B, 2A, 2B, reference numeral 102), and a belt within the cartridge that connects the door and the slider (specification p. 6, ll. 13-15, 27-29; specification p. 7, ll. 9-10; figure 3B, reference numeral 314), where when the cartridge is inserted into the drive a tab of the drive moves the slider to open the door (specification p. 6, ll. 22-27; figures 3A, 3B, reference numeral 322) by sliding the door parallel to the first face of the cartridge (specification p. 6, ll. 22-30; specification p. 7, ll. 9-11; figures 3A, 3B, reference numeral 322).

C. CLAIM 18 - INDEPENDENT

The subject matter of claim 18 is directed to a magnetic tape cartridge (specification p. 5, ll. 4-5; figures 1A, 1B, 2A, 2B, reference numeral 100). The magnetic tape cartridge includes a door on the first face of the cartridge (specification p. 5, ll. 10-11, 14-15, 26-27; specification p. 5 l. 30 through p. 6, l. 1; figures 1A, 1B, 2A, 2B, reference numeral 104), a slider on a second face of the cartridge (specification p. 5, ll. 8-9, 13-17; specification p. 6 ll. 6, 14, 167-18, 25-29; figures 1A, 1B, 2A, 2B, reference numeral 102), and a belt within the cartridge that connects the door and the slider (specification p. 6, ll. 13-15, 27-29; specification p. 7, ll. 9-10; figure 3B, reference numeral 314), where when the slider moves, the door opens (specification p. 6, ll. 26-27; specification p. 7, ll. 3-5) by sliding parallel to the first face of the cartridge (specification p. 6, ll. 29-30; specification p. 7, ll. 10-11; figures 3A, 3B, reference numeral 104), and a compression spring (Specification p. 6, ll. 12-13; specification p. 7, ll. 14-18, 22-23; figures 3A, 3B, reference numeral 312) that provides the force to close the door (Specification p. 6, ll. 12-13; specification p. 7, ll. 14-18, 22-23; figures 3A, 3B, reference numeral 312).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL**A. GROUND OF REJECTION 1 (Claims 1, 2, 4-6, 12, 13, 15-19, 21, and 22)**

Claims 1, 2, 4-6, 12, 13, 15-19, 21, and 22 stand rejected under 35 U.S.C. § 103 as obvious over *Nayak*, Tape Media Cartridge System and Components Thereof and Methods of Making and Using the Same, U.S. Patent 5,868,333 (February 9, 1999) (hereinafter "*Nayak*") in view of *Ishihara et al.*, Magnetic Tape Cartridge, U.S. Patent 6,435,439 (August 20, 2002) (hereinafter "*Ishihara*").

ARGUMENT

I. GROUND OF REJECTION 1 (Claims 1, 2, 4-6, 12, 13, 15-19, 21, and 22)

A. Grouping of claims 1, 2, 5, 12, 13, and 17

If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). In this case the examiner has failed to establish a *prima facie* case of obviousness against claims 1, 2, 5, 12, 13, and 17 for the reasons provided under each heading, below. Claim 1 is a representative claim of this group and is as follows:

1. A magnetic tape cartridge, comprising:
a door on a first face of the cartridge;
a slider on a second face of the cartridge;
a belt within the cartridge that connects the door and the slider;
wherein when the slider is moved, the door opens; and
wherein the door opens by sliding parallel to the first face.

Regarding claim 1, the examiner believes that:

"Nayak discloses a magnetic tape cartridge comprising a door 54 on a first face of the cartridge, a slider 66 on a second face of the cartridge adjacent the first face, a belt 68 connecting the door and the slider so that the door can be opened by movement of the slider, belt post 26 for guiding the belt so that it bends at an angle, and a torsion spring 72 that biases the door toward its closed position.

Nayak does not disclose that the door 54 opens by sliding parallel to the first face or that a compression spring provides force to close the door.

Ishihara et al teaches providing a tape cartridge 1 with a sliding door 27 that slides parallel to a face of the cartridge that includes an aperture closed by the door. Ishihara et al teaches providing the cartridge with a compression spring 10, 36 to provide a force to close the door."

Final Office Action of July 27, 2005, p. 2.

A.1. The Proposed Combination Changes the Principle of Operation of the Primary Reference

In combining references to show the claimed feature, the proposed modification cannot

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change the principle of operation of a reference. See *In re Ratti*, 270 F.2d 810, 123 (CCPA 1959) and MPEP 2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *Id.*

In the case at hand, the proposed combination changes the principle of operation of the invention of claim 1. *Nayak* is concerned with a door mechanism that opens with a pivoting or rotating motion. *Nayak* describes in great detail the principle and workings of his pivoting or rotating mechanism for opening the door and does not address or even indicate the desirability of non-rotating mechanisms. Instead, *Nayak* provides that:

In preferred embodiments, the notch 36 has a slot 38 to permit the passage of the cable 68 through the housing shell 12 for connection with the slidable tab 66 outside of the housing shell. Translation of the slidable tab 66 in the direction toward the housing shell rear 20, as designated by arrow 74, draws the cable 68 from the circumference of the rotatable pivot pin 42. This movement causes rotation of the pivot pin 42 and moves the aperture door 54 to an open position in the direction of arrow 58, as shown in FIG. 2.

FIG. 3 shows an enlarged plan view of the portion of the cartridge 10 having the aperture 30 and aperture door 54. In one preferred embodiment as shown in FIG. 3, the cartridge 10 includes an aperture door 54 rotatably movable between a closed position, as designated by arrow 56 (and as shown in broken lines), and the open position, as designated by arrow 58 (and as shown in solid lines). In preferred embodiments, the open position (solid line position) of the door 54 is pivoted approximately 90 degrees from the closed position of the door. In the closed position (broken line position in FIG. 3), the aperture door 54 substantially completely covers the aperture 30. In the aperture door open position (solid line position in FIG. 3), the aperture door 54 substantially completely exposes the aperture 30. In the illustrated embodiment, the aperture door 54 is fixed to the pivot pin 42 such that rotation of the pivot pin 42 causes pivotal motion of the door 54 between open and closed positions.

As described above, the cable 68 has one end coupled to the rotatable pivot pin 42 and an opposite end coupled to the sliding tab 66, such that a sliding motion of the tab 66 in the direction of arrow 74 causes a rotation of the pivot pin 42 in the door opening direction. More specifically, in the illustrated embodiment, the cable 68 is coupled to a portion of the pivot pin 42 laterally offset relative to the axis of rotation of the pivot pin. In preferred embodiments, the cable 68 comprises a flat, plastic ribbon which is sufficiently flexible to wrap around a portion of the circumference of the

pivot pin 42 and yet have sufficient tensile strength to repeatably open the aperture door 54 without substantial degradation of its material properties. In one preferred embodiment, the cable 68 comprises a mylar ribbon.

Nayak, col. 5, ll. 21-62.

As shown above, *Nayak* only teaches the pivoting or rotating mechanism and suggests no other mechanisms that operate on a different principle, like sliding as in the claimed invention. Similarly, *Nayak* also does not teach or suggest any other mechanism for moving the door, including lifting, pushing, flexing, or collapsing. Incorporating a door operating on any principle other than the pivoting or rotating principle described in *Nayak* would mean modifying, altering or replacing the principle of operation of *Nayak's* system. The examiner's proposed combination changes the principle of operation of *Nayak's* system because the door slides in *Ishihara* instead of pivoting as in *Nayak*. As shown above, *In re Ratti* provides that changing the principle of operation of a device renders a claim non-obvious in view of the proposed combination. Therefore, claim 1 is non-obvious in view of the proposed combination. For similar reasons, claims 2, 5, 13, and 17 are non-obvious in view of *Nayak* and *Ishihara*.

A.2. No Teaching, Suggestion, or Motivation Exists to Combine the References

In addition, a *prima facie* obviousness rejection of claim 1 has not been made because no teaching or suggestion to combine the references has been stated. A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). A proper *prima facie* case of obviousness cannot be established by combining the teachings of the prior art absent some teaching, incentive, or suggestion supporting the combination. *In re Napier*, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995); *In re Bond*, 910 F.2d 831, 834, 15 U.S.P.Q.2d 1566, 1568 (Fed. Cir. 1990). No such teaching or suggestion is present in the cited references and the examiner has not pointed out any teaching or suggestion that is based on the prior art.

The references themselves do not suggest the proposed advantage. In the present case, neither *Nayak* nor *Ishihara* teach the need to reduce the space for the cartridge door, or that a sliding door reduces the space required and is therefore desirable. Accordingly, the examiner has not actually stated a teaching or suggestion based on the references to combine the references.

Instead, the examiner has only put forth a hypothetical, and erroneous, advantage of combining the references based on the examiner's opinion rather than on a pre-existing teaching, suggestion, or motivation found in the references themselves. Thus, the examiner has failed to state a prima facie obviousness rejection of claim 1.

In addition, *Nayak* has no need for a sliding door and *Ishihara* provides no reason to add a sliding door to *Nayak*. Thus, one of ordinary skill would have no need or motivation to combine *Nayak* and *Ishihara*. In addition, *Ishihara* uses a spring to close the sliding door and an external actuator to open the sliding door. For this reason, *Ishihara* does not have any need or use for the belt shown in *Nayak*. Hence, one of ordinary skill again would not be motivated to combine the references.

The examiner argues that a sliding door would benefit *Nayak*'s system. This argument, however, does not address the fact that *Nayak* does not show a shortcoming or a need for a sliding door which would motivate one of ordinary skill to look to *Ishihara*. If no need for the combination exists, no pre-existing teaching, suggestion, or motivation to combine the references exists. Accordingly, claim 1 is non-obvious in view of the references when the references are considered as a whole.

A.3. The Examiner Has Used Impermissible Hindsight When Fashioning the Rejection

In addition, the examiner's personal opinion cannot be substituted for what the prior art teaches. The examiner believes that, "It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide *Nayak* with a sliding door as taught by *Ishihara* et al to reduce the space required to open the door." However, *Nayak* has no need for saving space, as evidenced by the fact that the door pivots open. *Ishihara* never states or implies why *Ishihara* uses a sliding door. Thus, as stated above, neither reference teaches or suggests that saving space with a sliding door is an issue. Given that *Nayak* has no need to save space, one of ordinary skill would have no reason to combine or otherwise modify the references. Based on the plain disclosures in the references, the only suggestion to modify the references is found in Applicants' specification. Hence, the examiner must have used Applicants' specification to find a teaching, suggestion, or motivation to combine the references. Doing so is impermissible hindsight and fails to comport with the standards of *Graham v. John Deere Co.*, 383 U.S. 1 (1966), which requires a proper teaching, suggestion, or motivation to combine or modify

references to achieve a proper obviousness rejection. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 1. For similar reasons, the rejection fails with regard to the remaining claims in this group.

A.4. The Examiner Has Not Stated a Proper Teaching, Suggestion or Motivation to Combine the References

In addition, the examiner has failed to state a *prima facie* obviousness rejection of claim 1 because the examiner has not stated a proper teaching, suggestion, or motivation to combine the references. Instead, the examiner has only stated a proposed advantage to combining the references. However, an advantage is not necessarily a teaching, suggestion, or motivation. To constitute a proper teaching, suggestion, or motivation, the examiner must establish that one of ordinary skill would both recognize the advantage and have a reason to implement the advantage. For example, a first reference may disclose the use of lasers to achieve nuclear fusion. A second reference may disclose that ultra-high power lasers deliver more energy. One of ordinary skill may recognize that an ultra-high power laser would be more useful to achieve nuclear fusion, though one of ordinary skill would be motivated to avoid combining the references because of the extreme expense of ultra-high power lasers. In this example, one of ordinary skill is motivated to avoid implementing the combination, even if he or she recognized the advantage, and so no teaching, suggestion, or motivation exists to combine the references. In the case at hand, the examiner has not provided a sufficient reason why one of ordinary skill would recognize the proposed advantage or have a reason to implement it. Furthermore, the proposed advantage does not actually exist for the reasons presented above. For these reasons, the examiner's statement fails to provide a proper teaching, suggestion, or motivation to combine the references. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection.

A.5. Nayak and Ishihara Would Not Be Combined By One of Ordinary Skill in the Art Because They Address Different Problems

One of ordinary skill would not combine the references to achieve the invention of claim 1 because the references are directed towards solving different problems. It is necessary to consider the reality of the circumstances--in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem

facing the inventor. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992); *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (CCPA 1979). The cited references do not address the same problems.

In the case at hand, *Nayak* is directed to solving the problem of detaching an aperture cover from the tape media leader block. For example, *Nayak* provides:

Accordingly, it is an object of preferred embodiments of the present invention to provide an apparatus and process of making and using the same, for holding a single reel of tape media for use in compact computer tape drives, in which the cartridge aperture cover is detached from the tape media leader block.

Nayak, col. 1, l. 66 through col. 2, l. 4.

On the other hand, *Ishihara* is directed to the problem of interference of a lock member with a sliding door. For example, *Ishihara* provides as follows:

In accordance with the magnetic tape cartridge described above, by virtue of the recess formed on the inner surface of the sliding door at least at a part opposed to the lock member, *interference of the lock member with the sliding door can be prevented and generation of failure in opening and closing the sliding door can be prevented*. Further, freedom in the shape of the lock member is increased and the entrance portion of the lock member against which the leader pin is first brought into abutment can be gentle in inclination and sufficient in width, *whereby leader pin holding action can be stabilized and reliability of the magnetic tape cartridge can be improved*.

Ishihara, col. 2, l. 66 through col. 3, l. 10 (emphasis added).

Thus, the references address completely distinct problems in the art of storage tape cartridges. Because the references address completely distinct problems, one of ordinary skill would have no reason to combine or otherwise modify the references to achieve the claimed invention. Accordingly, claim 1 is non-obvious in view of *Nayak* and *Ishihara*. Thus, one of ordinary skill in the art would not combine these references as proposed by the examiner.

In response, the examiner states:

Applicants argue that *Nayak* and *Ishihara* et al are not combinable since they address different problems. However, as noted by Applicants, they each disclose complete cartridges and, therefore, explicitly or implicitly address various structures and problems. Due to the similarity of their structures and intended functions, a number of teachings of one would be

applicable to the other. The references should be considered for what they would suggest as a whole to an ordinary artisan.

Final Office Action of July 27, 2005, pp. 4-5.

The examiner's statement does not adequately address the fact that *Nayak* and *Ishihara* address different problems. As a first matter, the examiner admits that each reference represents a complete cartridge. On this basis alone, no teaching, suggestion, or motivation exists to combine the references and, accordingly, the claims are non-obvious.

In addition, the examiner's statement refers to an overly-broad perspective of the references when considered as a whole. The examiner essentially states that because the two references have similar structures and intended functions, a number of teachings would be applicable to the other. However, this statement is too broad to rebut the fact that the references address different problems and therefore combining them to achieve the claimed invention would not be obvious. For example, as shown above and below, when the technical details of the references are considered, the logical conclusion to draw is that one of ordinary skill would not combine the references because combining the references would result in a non-operable device.

The reason for this fact is, in part, derived from the fact that the references address different problems. The examiner has not rebutted the specific deficiencies in *Nayak* and *Ishihara* and has not rebutted any of the specific facts pointed out by Applicants that show that one of ordinary skill would not combine the references when the references are considered as a whole. For this reason, and for the reasons already given, claim 1 is non-obvious in view of the references when the references are considered as a whole because the references address different problems.

In addition, as explained above, reduction of space is not an issue in *Nayak*. *Nayak* clearly states that the problem of space required by a pivoting door is addressed, and therefore no need remains in *Nayak* to reduce or eliminate the space required by a pivoting door. For example, *Nayak* states that:

In preferred embodiments, the aperture door 54 is articulated to the open position 58 without the use of motorized or electrical mechanisms. Also in further preferred embodiments, the aperture door 54 is articulated to its fully opened state, prior to the cartridge being fully received within the tray 104, such that an additional volume of space need not be reserved within the read/write device 100 for the cartridge aperture door 54 to sweep from its closed position to its open position.

Nayak, col. 8, ll. 42-50.

Nayak describes in the cited section how additional space inside the drive is *not* required for the pivoting door in the disclosed system. Because the problem suggested by the examiner does not even exist in *Nayak*, an artisan would not have any reason to look to *Ishihara* to solve an already solved problem. Accordingly, claim 1 is non-obvious in view of the references when the references are considered as a whole.

A.6. No Teaching or Suggestion Exists To Combine the References Because Each Reference Represents a Complete Solution To the Problem That Each Solves

Both *Nayak* and *Ishihara* represent complete solutions to the problems each solves. The examiner admits that the references each show complete cartridges. *Nayak* shows a device for opening pivot door in a tape cartridge. *Nayak* has no need to address the problem of saving space because *Nayak* provides an opening into which the pivoting door may be placed. Furthermore, *Nayak* provides no indication that saving space is a consideration in tape cartridges. On the other hand, *Ishihara* shows a device having a recess on the inner surface of a sliding door, thus *Ishihara* represents a complete solution for opening and closing a sliding door. *Ishihara* provides no indication that saving space is a consideration in tape cartridges. Because each reference provides a complete solution to the problem that each reference represents and neither reference indicates that space should be saved in a tape cartridge, one of ordinary skill would have no reason to combine or otherwise modify the references. Accordingly, claim 1 is non-obvious. For similar reasons, the remaining claims in this group are non-obvious.

A.7. The Age of the References, Combined with the Value of the Claimed Invention and the Absence of Prior Disclosure Show that Claim 1 is Non-Obvious

Nayak published in 1999. *Ishihara* published as a PCT Application in 1999. In the intervening six years, no one has produced a product that incorporates the claimed invention or has published a reference that shows the claimed invention. Given the value of the claimed invention, a value recognized by the examiner as a space-saving invention, if the claimed invention has been obvious then someone in the world would have already shown or suggested the claimed invention. Because no one has shown or suggested the claimed invention in the intervening six years, claim 1 and the other claims in this group are non-obvious.

Similarly, in the intervening six years only Applicants have proposed the claimed invention and only the examiner has suggested combining the references. Thus, again, the examiner must have used impermissible hindsight when fashioning the obviousness rejections. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 1.

In response, the examiner states:

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

Final Office Action of July 27, 2005, p.5

In re Wright, as characterized by MPEP 2145, provides that *mere* age of a reference is not enough to render a claim non-obvious. However, the examiner has misunderstood the facts pointed out by Applicants. Applicants have shown that the age of the references *together* with the value of the claimed invention and with the fact that no other references show the claimed invention show that claim 1 is non-obvious. Had claim 1 been obvious, then someone in the world would have proposed the claimed invention. The combination of the age of the references and the absence of realization of the purported advantage by others makes the claimed invention non-obvious. The "mere" age of the references is not at issue.

For the reasons described above, the examiner has failed to state a *prima facie* case of obviousness against claim 1. In addition, for the reasons described above, the claims are non-obvious over *Nayak* in view of *Ishihara*. Accordingly, claim 1 should be allowable over the cited references. For similar reasons, the remaining claims in this group should be allowable over the cited references.

B. Grouping of claims 4, 15, and 21

The examiner has failed to state a *prima facie* obviousness rejection of claims 4, 15, and 21. Claim 4, which is representative of the claims in this group, is as follows:

4. The cartridge of claim 1, further comprising a belt post that bends the belt at an angle.

B.1. The Proposed Combination Does Not Teach All of the Features of Claim 4

All limitations of the claimed invention must be considered when determining patentability.

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In re Lowry, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). As shown in the previous response to office action, *Nayak* does not show or suggest a post, as claimed in claim 4, and *Ishihara* fails to cure the lack of disclosure in *Nayak* in this regard. For this reason, the proposed combination does not teach all of the limitations of claim 4. Accordingly, the examiner has failed to state a prima facie obviousness rejection of claim 4.

In response, the examiner states that:

"the term 'post' does not specify a structure of any particular shape. The guide member of *Nayak* projects from the surface of the cartridge case and guides the belt 68 around a corner of the case as in Applicants' invention. Thus, the guide 26 is a post as broadly recited in the claims."

Final Office Action of July 27, 2005, p. 3.

Nayak discloses an arcuate guide and additionally discloses a "pin structure." However, in light of the further disclosure of a pulley and the preference of the arcuate guide structure, this pin-structure is not a single pin but several pins required to accomplish *Nayak's* structure. Both the pulley and the arcuate guide provide an arc of convex curvature along which the cable is bent. This arc is significantly longer than the curvature of a single pin, and therefore any pin-structure suggested by *Nayak* must have several pins to form the longer arc. Accordingly, *Nayak* does not show a single post as claimed.

Furthermore, the examiner is mistaken in stating, "the post does not specify a structure of any particular shape." Claim terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art. *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003). See also *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003) ("In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.") The ordinary and customary meaning of a term may be evidenced by a variety of sources. *Id.* at 1136. Where there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meanings. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998).

The Webster's English language dictionary defines the word "post" as follows:

Post: a piece (as of timber or metal) fixed firmly in an upright position especially as a stay or support.

Merriam-Webster's Online Dictionary, 2005.

In defining this meaning, the dictionary also points to the words "pillar" and "column." Further defining these words, the term "column" means "a supporting pillar; *especially* : one consisting of a usually round shaft, a capital, and a base," and the term "pillar" means "a firm upright support for a superstructure." A person of ordinary skill in the art would unambiguously perceive the post as claimed to mean a structure as commonly understood by the above definitions. *Nayak* does not show or suggest this structure. The examiner's characterization to the contrary is based on an overly-broad and unsupported interpretation of the term "post." Neither *Nayak* nor *Ishihara* show or suggest a post as claimed in claim 4. Hence, the proposed combination does not teach all of the features of claim 4 and the examiner has failed to state a *prima facie* obviousness rejection against claim 4. Therefore, claim 4 should be in condition for allowance. For similar reasons, claims 15 and 21 should be in condition for allowance.

B.2. No Teaching, Suggestion, or Motivation Exists to Combine the References

A proper *prima facie* case of obviousness cannot be established by combining the teachings of the prior art absent some teaching, incentive, or suggestion supporting the combination. *In re Napier*, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995); *In re Bond*, 910 F.2d 831, 834, 15 U.S.P.Q.2d 1566, 1568 (Fed. Cir. 1990). As described above, *Nayak* does not teach or suggest a post as claimed by the applicants for claims 4, 15, and 21. *Nayak*'s structure requires several pins to accomplish the purpose of the arcuate guide. *Ishihara* does not show or suggest a belt or a guide mechanism for a belt. *Ishihara* is completely devoid of any teachings or suggestions for use of belts and mechanisms for bending belts inside the cartridge. As such, *Ishihara* does not suggest a post that can be combined with *Nayak* to create the claimed post. Therefore, no pre-existing teaching, suggestion, or motivation can be found within the cited references. Accordingly, no teaching, suggestion, or motivation exists to combine the references to result in the invention of claim 4. Therefore, claim 4 is non-obvious in view of *Nayak* and *Ishihara*. For similar reasons, claims 15 and 21 are non-obvious in view of the cited references.

C. Grouping of Claims 6 and 16

The examiner has failed to state a *prima facie* obviousness rejection of claims 6 and 16. Claim 6, which is representative of the claims in this group, is as follows:

6. The cartridge of claim 1, further comprising a compression spring, wherein the compression spring provides force to close the door.

C.1. The Proposed Combination Does Not Teach All of the Features of Claim 6

The examiner has failed to state a *prima facie* obviousness rejection of claim 6 because the proposed combination does not teach all of the features of claim 6 and, accordingly, the proposed combination does not result in the invention of claim 6. The examiner believes that:

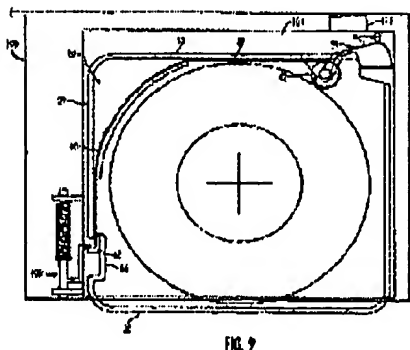
It would have been obvious to provide *Nayak* with a compression spring as taught by *Ishihara et al* to provide the force for biasing the door to the closed position since it would have been apparent to an ordinary artisan that many different types of springs would be capable of providing the required closing force. Use of a compression spring allows for arrangement of parts to reduce the height (perpendicular to the large faces of the cartridge) of the door mechanism.

...

Nayak already has the claimed belt and *Nayak* has a torsion spring 72 for biasing the pivoting door to a closed position. *Ishihara et al* suggests the provision of a sliding door *in lieu of* the pivoting door of *Nayak* as discussed above. *Ishihara et al* also teaches the use of a linearly acting spring for a sliding door which would clearly have been more appropriate to that type of door than the spring of *Nayak*.

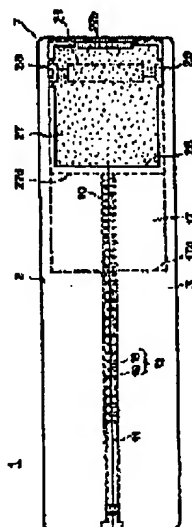
Final Office Action of July 27, 2005, pp. 3-4.

The examiner also asserts that *Nayak* shows a torsion spring 72 used to urge the pivot door closed. However, *Nayak* does not show a compression spring as being part of the cartridge. *Nayak* does show a compression spring as part of the cartridge opener, reference numeral 106 in Figure 9 (reproduced below), though *Nayak* does not show a compression spring within the cartridge itself and would not benefit from a compression spring within the cartridge itself.



On the other hand, *Ishihara* shows a compression spring used to close a sliding door. Figure 7 of *Ishihara* shows this feature, as reproduced below.

FIG. 7



As seen from the figures, and as shown above, the compression spring of *Ishihara* would be of no use in closing *Nayak's* pivoting door. Thus, the proposed combination would be inoperable and would not result in the claimed inventions. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 6.

Even if both the compression spring and sliding door of *Ishihara* were incorporated into *Nayak's* device, the proposed combination would still fail to result in the claimed inventions. *Nayak* teaches placing the spring at the location of the door, as does *Ishihara*. Even if *Nayak's* pivoting door were replaced with a sliding door, the compression spring would be useless at the location of the door because *Nayak's* cable eliminates the need for the compression spring. Thus,

the proposed combination would be useless and would not result in the claimed inventions. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 6.

C.2. No Teaching, Suggestion, or Motivation Exists to Combine the References

A proper *prima facie* case of obviousness cannot be established by combining the teachings of the prior art absent some teaching, incentive, or suggestion supporting the combination. *In re Napier*, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995); *In re Bond*, 910 F.2d 831, 834, 15 U.S.P.Q.2d 1566, 1568 (Fed. Cir. 1990). A *prima facie* obviousness rejection has not been stated because a proper teaching, suggestion, or motivation to combine the references has not been stated. As explained above, no teaching, suggestion, or motivation exists to combine the references because the proposed combination would not result in the claimed inventions and because the proposed combination would result in an unworkable device. In the response to arguments, the examiner states:

Applicants further argue that Ishihara et al uses a spring and an external actuator to open the sliding door and does not have any need or use for a the belt shown in Nayak. However, while it may have been obvious to modify Ishihara et al to provide a belt for operating the door, this is not the modification proposed by the Examiner. Nayak already has the claimed belt and Nayak has a torsion spring 72 for biasing the pivoting door to a closed position. Ishihara et al suggests the provision of a sliding door in lieu of the pivoting door of Nayak as discussed above. Ishihara et al also teaches the use of a linearly acting spring for a sliding door which would clearly have been more appropriate to that type of door than the spring of Nayak.

Office Action of July 25, 2005, p. 4.

However, the examiner is incorrect. *Ishihara* does not suggest using a sliding door "in lieu of" a door operated on another principle, including pivoting. *Ishihara* does not teach or suggest a reason to use the sliding door and not a door operating on another principle. *Ishihara* also does not elaborate on the choice or any perceived advantage of a sliding door over another type of door.

As shown above, no reason exists to combine the compression spring of *Ishihara* with the device shown in *Nayak*. Even if Applicants admit that urging the door closed is desirable, *Nayak* accomplishes that goal through the use of the cable and a torsion spring. The compression spring would not help in *Nayak*'s device because the cable would interfere with the operation of the

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compression spring. This fact contradicts the examiner's unsupported statement that using a linearly acting spring for a sliding door "clearly" would have been more appropriate. Thus, the examiner's statement quoted above lacks sufficient detail to provide a proper teaching, suggestion, or motivation to combine the references. Accordingly, the above statement cannot be a proper teaching, suggestion, or motivation to combine the references.

Furthermore, the examiner has provided no reason why one of ordinary skill would recognize that reducing the height of the door mechanism would be desirable. As shown above, the references themselves provide no indication that doing so is desirable; only Applicants specification indicates that doing so is desirable. Thus, the examiner must have used impermissible hindsight when fashioning the obviousness rejections. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 6.

In addition, even if one of ordinary skill recognizes that many different types of springs are available, the examiner must provide a teaching, suggestion, or motivation why one of ordinary skill would implement a particular type of spring. As shown above, the use of a compression spring in the cartridge of *Nayak* would be either inoperable or useless, even if the sliding door were included. This example shows why the statement offered by the examiner cannot be used as a substitute for the requirement under *Graham v. John Deere* that a proper teaching, suggestion, or motivation be present to combine the references. Accordingly, the above statement can not be a proper teaching, suggestion, or motivation to combine the references.

Because the examiner has not provided a proper teaching, suggestion, or motivation to combine the references, the examiner has failed to state a *prima facie* obviousness rejection of claim 6. Accordingly, Applicants request that the Board overturn the rejections and allow claim 6. For similar reasons, claim 16 should also be allowed.

D. Grouping of Claims 18, 19, and 22

The examiner has failed to state a *prima facie* obviousness rejection of claims 18, 19, and 22. Claim 18, which is representative of the claims in this group, is as follows:

18. A magnetic tape cartridge, comprising:
a door on a first face of the cartridge;
a slider on a second face of the cartridge;
a belt within the cartridge that connects the door and the slider;
wherein when the slider is moved, the door opens; and

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a compression spring, wherein the compression spring provides force to close the door.

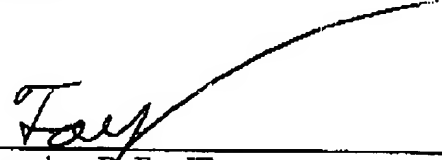
D.1. The Examiner Has Failed To State a *Prima Facie* Obviousness Rejection of Claim 18 for Reasons Similar to those Presented Vis-À-Vis Claim 1

The examiner has not identified any additional bases for the rejection of claim 18 over those presented vis-à-vis claim 1. The rejection of these claims follows from the rejection made by the examiner against claims 1, 2, 5, 12, 13, and 17. For similar reasons, the examiner has also failed to make a *prima facie* case of obviousness against claim 18 or against the other claims in this group.

In addition, claim 18 contains the feature of a compression spring that provides force to close the door, as claimed. For similar reasons shown above with respect to claim 6, which also contains the feature of a compression spring, the examiner has failed to state a *prima facie* obviousness rejection of claim 18.

E. SUMMARY

The examiner has failed to state a *prima facie* obviousness rejection of the claims. In addition, the claims are non-obvious in view of *Nayak* and *Ishihara* when the references are considered as a whole. Accordingly, Applicants respectfully request the Board of Patent Appeals and Interferences to overturn the rejections and allow the claims.


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CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A magnetic tape cartridge, comprising:
a door on a first face of the cartridge;
a slider on a second face of the cartridge;
a belt within the cartridge that connects the door and the slider;
wherein when the slider is moved, the door opens; and
wherein the door opens by sliding parallel to the first face.
2. The cartridge of claim 1, wherein the first face and the second face of the cartridge are adjacent to one another.
4. The cartridge of claim 1, further comprising a belt post that bends the belt at an angle.
5. The cartridge of claim 1, wherein when the cartridge is inserted into a drive, a tab of the drive engages the slider to thereby move the slider.
6. The cartridge of claim 1, further comprising a compression spring, wherein the compression spring provides force to close the door.
12. A system for accessing data on a magnetic tape cartridge, comprising:
a drive for receiving the magnetic tape cartridge;
wherein the magnetic tape cartridge comprises:
a door positioned on a first face of the cartridge;
a slider positioned on a second face of the cartridge, the slider being connected to the door by a belt;
wherein when the cartridge is inserted into the drive, a tab of the drive moves the slider to thereby open the door; and
wherein the door opens by sliding parallel to the first face.

13. The system of claim 12, wherein the first face and the second face of the cartridge are adjacent to one another.
15. The system of claim 12, further comprising a belt post that bends the belt at an angle.
16. The system of claim 12, further comprising a compression spring, wherein the compression spring provides force to close the door.
17. The system of claim 12, wherein the motion of inserting the cartridge into the drive opens the door.
18. A magnetic tape cartridge, comprising:
 - a door on a first face of the cartridge;
 - a slider on a second face of the cartridge;
 - a belt within the cartridge that connects the door and the slider;
 - wherein when the slider is moved, the door opens; and
 - a compression spring, wherein the compression spring provides force to close the door.
19. The cartridge of claim 18, wherein the first face and the second face of the cartridge are adjacent to one another.
21. The cartridge of claim 18, further comprising a belt post that bends the belt at an angle.
22. The cartridge of claim 18, wherein when the cartridge is inserted into a drive, a tab of the drive engages the slider to thereby move the slider.

EVIDENCE APPENDIX

There is no additional evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

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In re application of: Morgan et al.

Group Art Unit: 3654

Serial No.: 10/670,919

Examiner: Haugland, Scott J.

Filed: September 25, 2003

Attorney Docket No.: 2003-052-TAP

For: Tape Cartridge Media Access
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ENCLOSED HEREWITH:

- Appeal Brief (37 C.F.R. 41.37)

A fee of \$500.00 is required for filing an Appeal Brief. Please charge this fee to Storage Technology Corporation Deposit Account No. 19-4545. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to Storage Technology Corporation Deposit Account No. 19-4545. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to Storage Technology Corporation Deposit Account No. 19-4545.

Respectfully submitted,

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